

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Petition of WISP Seeking Declaratory Ruling that the)	
City of Fountain Valley's Denial of a Conditional Use)	WT Docket No. 19-270
Permit allowing Operation of Wireless Facilities is)	
Precluded By the Commission's OTARD Rule)	
)	

REPLY OF WISP.NET

Wisp.net ("WISP"),¹ through its counsel, respectfully submits its reply in in response to certain comments filed in the above-captioned proceeding. Specifically, WISP responds to the City of Fountain Valley's ("City") Comments to Petition for Declaratory Ruling ("City Comments") and Comments of the Community Associations Institute ("CAI" and "CAI Comments").

The City claims that an OTARD that provides a "hub and relay" function loses its status as an OTARD.² The Community Associations Institute ("CAI") seems to be arguing that the OTARD Rule protects only the transmission of one-way video signals.³ The CAI's position lacks merit, as WISP's answers to each of its arguments demonstrate, herein.

I. The FCC's Regulatory Treatment and Protection of OTARDs

It is beyond debate that the OTARD Rule, 47 C.F.R. § 1.4000, protects over-the-air-reception devices ("OTARDs") that receive fixed wireless Internet transmissions or any other data signals. Section 1.4000(a)(2) defines "fixed wireless signals" as "any commercial non-broadcast communications signals transmitted via wireless technology to and/or from a fixed customer location."

¹ WISP is the d/b/a for Relevant Ads, Inc., a California corporation based in Fountain Valley, California. Among other services, WISP provides fixed wireless Internet connections to tenants at 10175 Slater Avenue, Fountain Valley; nearby businesses and other customers beyond the range of WISP's Wi-Fi signal. The details of WISP's network and operations are set forth in WISP's August 15, 2019 Petition for Declaratory Ruling ("Petition") and the accompanying Declaration of David Rodecker ("Declaration"). WISP provides competition against incumbents and is generally the only alternative to DSL.

² City Comments at 5-6, 7.

³ CAI Comments at unnumbered page 2.

At first, OTARD protection was given only to devices receiving video signals.⁴ But that changed reasonably soon.

In extending its OTARD protections beyond video signals, the FCC stated “[p]recisely the same antennas may be used for video services, telecommunications, and internet access.”⁵ Indeed, the Commission’s Final Regulatory Flexibility Analysis in the *Competitive Networks Order* (at 23106, footnotes omitted) contains the finding:

There is widespread support in the record for an extension of the OTARD rule to include all fixed wireless services. Moreover, we believe that extending the OTARD rule to include all fixed wireless services is essential to meeting our obligation to promote the deployment of advanced telecommunications capability under Section 706(a) of the 1996 Act.

Thus, there are only two material questions before the Commission. One is: Whether the signals transmitted by WISP are “fixed wireless signals,” as defined in the OTARD Rule. In this matter, no one disputes WISP’s statement that it provides point-to-point fixed wireless signals that include Internet and other data transmissions. Further, based on all the evidence, the FCC must conclude WISP’s radio transmissions between its devices constitutes “fixed wireless signals.”

Question number two is: Whether the devices used by WISP to deliver the “fixed wireless signals” constitute OTARDs. The answer, as explained by WISP below (and in its Petition, including the Declaration and exhibits) is “yes.”

⁴ *Preemption of Local Zoning Regulation of Satellite Earth Stations, Implementation of Section 207 of the Telecommunications Act of 1996 and Restrictions on Over-the-Air Reception Devices: Television Broadcast Service and - Multichannel Multipoint Distribution Service*, Report & Order, Memorandum Opinion & Order, And Further Notice of Proposed Rulemaking, 11 FCC Rcd. 19276 (1996) (“*Section 207 Order*”).

⁵ *Promotion of Competitive Networks in Local Telecommunications Markets, Wireless Communications Association International, Inc. Petition for Rulemaking to Amend Section 1.4000 of the Commission’s Rules to Preempt Restrictions on Subscriber Premises Reception or Transmission Antennas Designed to Provide Fixed Wireless Services, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, and Review of Sections 68.104, and 68.213 of the Commission’s Rules Concerning Connection of Simple Inside Wiring to the Telephone Network*, First Report & Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, Fifth Report & Order and Memorandum Opinion & Order in CC Docket No. 96-98, and Fourth Report & Order and Memorandum Opinion & Order in CC Docket No. 88-57, 15 FCC Rcd. 22983 at ¶ 98 (2000) (“*Competitive Networks Order*”), *recon.*, 19 FCC Rcd. 5367 (2004) (“*Competitive Networks Recon*”).

The City of Fountain Valley ("City") agrees with WISP to the extent WISP is transmitting fixed wireless signals to devices that would be categorized as OTARDs but for the City's claim that an OTARD that provides a "hub and relay" function loses its status as an OTARD. As shown herein, WISP provides a mesh network that is protected by the Rule.

II. Section 332(c)(7) of the Act Is Inapplicable to this Matter

The City first discusses Section 332(c)(7) of the Communications Act of 1934, as amended ("Act"), 47 U.S.C. § 332(c)(7).⁶ Section 332 generally preempts most state regulation of "personal wireless services." Section 332(c)(7) allows for certain zoning regulation of facilities used to provide "personal wireless services." Personal wireless services are "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services."⁷

"Commercial mobile services" are mobile telephone or cellphone services provided by companies such as AT&T, Verizon and T-Mobile. Indeed, the definitions of fixed wireless services and mobile wireless services are polar opposites. A fixed service is defined as "A radiocommunication service between specified fixed points."⁸ A fixed point does not move. On the other hand, the FCC has defined a mobile service as "A radiocommunication service between mobile and land stations, or between mobile stations."⁹ Mobile connotes a device that is not stationary but, instead, moves with the user. WISP does not provide "commercial mobile services."

Likewise, because WISP does not provide mobile voice services, it cannot be a common carrier or be providing "common carrier wireless exchange access services."

That leaves "unlicensed wireless services." Section 332(c)(7)(C)(iii) defines "unlicensed wireless service" to mean "the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite

⁶ City Comments at 5-6.

⁷ 47 U.S.C. § 332(c)(7)(C)(i) (emphasis added).

⁸ 47 C.F.R. § 2.1 (Definitions).

⁹ *Id.*

services (as defined in section 303(v) of this title)." WISP does provide "VoIP services."¹⁰ However, the FCC has never classified VoIP services as telecommunications.¹¹

Considering all of WISP's services together, WISP still does not provide telecommunications, as that term is defined by the FCC under the Act. In 2007, the FCC categorized wireless broadband Internet access as an "information service" and not "telecommunications."¹² The FCC changed its mind in 2016 and reclassified broadband Internet access as "telecommunications."¹³ A switch back to "information services" occurred in 2017.¹⁴ Today, the provision of Internet access is not telecommunications. Ergo, it is not an "unlicensed wireless service" or "personal wireless service," as defined in Section 332(c)(7).

When one reads the definitions of personal wireless services as used in Section 332 of the Act, the only conclusion that can be drawn is that WISP does not provide them. Section 332(c)(7) conditionally preserves certain state and local zoning powers over towers, antennas and other outdoor equipment that provide personal wireless services. Since WISP does not provide personal wireless services, Section 332(c)(7) does not apply. And it does not give the City any zoning rights over WISP's OTARDs and related facilities.¹⁵ Needless to say, Section 332(c)(7) does not include the words "tower"

¹⁰ Declaration at 19.

¹¹ See, e.g., *Charter Advanced Servs. (MN), LLC v. Lange*, 259 F.Supp.3d 980 (D. Minn. 2017), *aff'd*, 903 F.3d 715 (8th Cir. 2018). "We conclude that the VoIP technology used by Charter Spectrum is an "information service" under the [34] Act." *Id.*, 903 F.3d at 719. "We note that while the FCC would be able to announce a classification decision regarding VoIP, it has so far declined to do so." *Id.*, 903 F.3d at 719, n.3.

¹² *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, Declaratory Ruling, 22 FCC Rcd. 5901 (2007) ("Wireless Broadband Order").

¹³ *Protecting and Promoting the Open Internet*, Report & Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601 (2015) ("Title II Order"), *aff'd United States Telecom Association v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).

¹⁴ *Restoring Internet Freedom*, Declaratory Ruling, Order, and Report & Order, 33 FCC Rcd. 311 (2017), *aff'd in part, vacated and remanded in part, Mozilla Corp. v. FCC*, No. 18-1051, *slip op.* (D.C. Cir. Oct. 1, 2019). The issues remanded does not affect the FCC's categorization of Internet access as an "information service."

¹⁵ The FCC made this perfectly clear when it stated, "In the Competitive Networks Order, the Commission determined that Section 332(c)(7) of the Telecommunications Act of 1996, which preserves local authority

or “height.” Therefore, the fact that one or more of WISP’s devices are mounted on masts and that such mast may be or exceed 40 feet in the air does not trigger the City’s ability to shut down WISP’s network through zoning.¹⁶ The City’s discussion of Section 332(c)(7) is completely fallacious and should be ignored.

III. WISP Operates an OTARD-based Mesh Network Protected by the OTARD Rule

Next, the City argues the OTARD Rule does not cover WISP’s situation because WISP’s devices perform a “hub and rely” function.”¹⁷ In the *Competitive Networks Order*, the FCC stated that it did not intend for the OTARD Rule to “cover hub or relay antennas used to transmit signals to and/or receive signals from multiple customer locations.”¹⁸ But on reconsideration, the FCC made it clear that the OTARD Rule protected equipment placed on customer premises equipment that “also relay signals to other customers, such as is typical in mesh networks.”¹⁹ The FCC clearly did not intend to freeze OTARD technology eligible for protection against local government regulation to what was available in 2004.

On reconsideration, the Commission went on to write “As demonstrated by the point-to-point-to-point architecture cited by Triton and the mesh architectures being actively developed and deployed, other types of deployment of advanced services may no longer rely on the traditional

to regulate placement of personal wireless service facilities, does not apply to customer-end antennas [OTARDs].” *Competitive Networks Recon* at ¶ 16.

¹⁶ The City makes the argument that “[T]he legislative history of section 332(c)(7) refers to non-customer-end equipment such as ‘50 foot towers’ as an example of ‘personal wireless service facilities.’” City Comments at 6, *citing Competitive Networks Recon* at ¶ 14. However, the legislative history cannot override the fact that Congress did not include “tower or mast height” as a trigger for Section 332(c)(7) to come into play. As explained above, Section 332(c)(7) applies only when the entity a municipality seeks to regulate through zoning provides “personal wireless services.” WISP simply does not provide “personal wireless services,” such that Section 332(c)(7) is inapplicable.

¹⁷ City Comments at 6-7.

¹⁸ *Competitive Networks Order* at ¶ 99. The only zoning power permitted to localities occurs when an OTARD-related mast exceeds 12 feet in height. Then a locality can impose safety regulations and only safety regulations. *Competitive Networks Order*, at ¶ 110 and n.258. There, the FCC reiterated “permit requirements for masts exceeding this height may be imposed to achieve legitimate safety objectives, not for aesthetic purposes.”

¹⁹ *Competitive Networks Recon* at ¶ 17, n.42.

configurations addressed in the *Competitive Networks Order*. ... We do not believe that our rules should serve to disadvantage more efficient technologies.”²⁰ This language makes it clear that, just as Triton was not “punished” for using then-new technology to provide its services, so too must WIPS be exempt from the City’s “punishment” for using today’s technology. The Declaration makes it clear WISP installed new equipment in 2017 to extend the range and quality of its customers’ signals,²¹ the very thing the FCC encouraged in the *Competitive Networks Order*.²²

Patent cases provide both working and technical definitions of “mesh networks.” For example, in *WIAV Networks, LLC v. Hewlett-Packard Co.*,²³ a mesh network was described as “us[ing] routing and other algorithms to relay a message to its destination where one node is the source, there are one or more intermediate nodes and a destination node.” If a mesh network connects to the Internet, at least one point must be the “source node,” i.e., the point where the mesh network connects to the Internet backbone network. One might argue that the source node provides some features similar to a hub. Yet, that does not convert a mesh network into an unprotected hub and relay system or the FCC would not have given mesh networks OTARD protection in the *Competitive Networks Recon* Order. Rather, the FCC would have said that a mesh network protected by the OTARD Rule could not provide Internet connections and only serve as an intranet among customers – something no one would buy.²⁴

²⁰ *Id.* at ¶ 16.

²¹ Declaration at ¶¶ 8-12.

²² Since the City has not objected to WISP’s mast at 10175 Slater Avenue (Declaration of Matt Jenkins on behalf of the City at 9), the 2017 installation of different equipment is protected under Section 1455(a)(1) of the Act, 47 U.S.C. § 1455(a)(1). It provides that a “local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (Pub. L. 112-96, 126 Stat 156) provides guidance as to when a tower or antenna “substantially increases in size.”

²³ *WIAV Networks, LLC v. Hewlett-Packard Co.*, No. C 10-03448 WHA, *slip op.* at 19 (N.D. Calif. June 2, 2011).

²⁴ Moreover, the FCC has proposed “to eliminate the restriction that currently excludes hub and relay antennas from the scope of the OTARD provisions.” *Updating the Commission’s Rule for Over-the-Air Reception Devices*, Notice of Proposed Rulemaking, 34 FCC Rcd. 2695, at ¶ 7 (2019) (“*2019 NPRM*”). The 2019 Notice continued: “The Commission’s decision in the *2000 Competitive Networks Order* to limit the

The City does not even discuss mesh networks. Neither does CAI. This does not surprise WISP because any such discussion would be compelled to admit the use of OTARDs in mesh networks is protected by Section 1.4000 and FCC orders interpreting the same. And the *2019 NPRM* would simply eliminate any argument the City could make against WISP's network even if it were a "hub and rely" system.²⁵

Despite the fact that it has no authority over WISP's facilities pursuant to Section 332(c)(7), the City does complain about the height of WISP's antenna at 10175 Slater Avenue.²⁶ But David Rodecker's Declaration explains that, in order to obtain sufficient speed and capacity for his building from his connection to the Internet, Rodecker had to install a "40-foot tall 3-post Rohn tower, on the building's rooftop and attached a Powerbeam radio reception device to the mast."²⁷ There is nothing in the FCC's rules and orders that limit the height at which OTARDs can be installed. Indeed, the OTARD Rule specifically bans any "law, regulation, or restriction" that "[p]recludes reception or transmission of an acceptable quality signal." In the face of Mr. Rodecker's Declaration, the City would be required to provide engineering evidence that a shorter or screened antenna could still provide "1

applicability of the OTARD rule reflected the infrastructure needs of a previous generation of wireless technologies that relied on larger antennas spread over greater distances to provide service to consumers. The wireless infrastructure landscape has since shifted toward the development of 5G networks and technologies that require dense deployment of smaller antennas across provider networks in locations closer to customers. We anticipate that revising the OTARD framework would allow fixed wireless providers to deploy hub and relay antennas more quickly and efficiently and would help spur investment in and deployment of needed infrastructure in a manner that is consistent with the public interest." *Id.* (footnotes omitted).

However, the Commission can grant the Petition narrowly (on a mesh network basis) without prejudicing the outcome of the NPRM, which may take much longer to resolve, while still providing small wireless providers with a path to relief when they satisfy the requirements therefor

²⁵ *Id.*

²⁶ City Comments *passim*.

²⁷ Rodecker Declaration at ¶ 8.

Gbps wireless connection required for service.”²⁸ No such evidence has been provided, and the City has the burden of proof on all issues necessary to sustain its zoning regulation.²⁹

IV. The City’s Discussion of *Continental Airlines* Ignores Mesh Networks

The City discusses the *Continental Airlines* case³⁰ and uses it for the proposition that OTARD protection is available only when the user “route[s] signals strictly within an antenna user’s premises.”³¹ The City notes that the case recognized the “rights of state and local governments under Section 332(c)(7) to regulate the placement, construction and modification of carrier hub sites’ as personal wireless service facilities.”³² Not so! First, since it is undebatable that WISP does not provide “personal wireless services,” Section 332(c)(7) is inapplicable. Second, the *Continental Airlines* case recognizes that mesh networks, where “a customer antenna not only receives or sends signals destined for or created by the customer but also routes signals to and from other customer antennas.”³³ The bottom line is: Mesh networks are protected by the OTARD Rule.

The City complains that WISP’s mast at 10175 Slater Avenue attaches to a “multitude of high-power, high-range antennas.” That fact is immaterial. Section 332(c)(7) is not triggered by power limits or the range of antennas. Similarly, Section 1.4000 of the FCC’s rules does not limit power or the use of high-range antennas. Radio power limits for devices using unregulated spectrum, including WISP’s devices, are regulated by Part 15 of the FCC’s rules. Radio equipment must be authorized pursuant to Part 2 of the FCC’s rules and its technical standards. Certain antennas must be registered under Part 17 of the Commission’s rules. None of these rules relate to local zoning.

²⁸ *Id.*

²⁹ 47 C.F.R. § 1.4000(g). The FCC placed the burden of proof on the entity seeking to impose or maintain the restriction. *Section 207 Order*, 11 FCC Rcd at 23083. This requirement remains untouched 19 years later.

³⁰ *Continental Airlines Petition for Declaratory Ruling Regarding the Over-the-Air Reception Devices (OTARD) Rules*, Memorandum Opinion & Order, 21 FCC Rcd 13201 (2006) (“*Continental Airlines*”).

³¹ City Comments at 7.

³² *Id.*, citing *Continental Airlines* at ¶ 20.

³³ *Continental Airlines* at ¶ 6, n.18, ¶ 8, n.21.

V. CAI's Comments Are Not Understandable

CAI's comments are puzzling to say the least. CAI argues that Section 207 of the Telecommunications Act of 1996³⁴ "provide appropriate means for community association residents to receive video programming services at their residence."³⁵ This statement ignores the 2000 *Competitive Networks Order* that extended the OTARD Rule's protections to "all fixed wireless services."³⁶ People have the right to install and use otherwise compliant OTARDs³⁷ for voice, video and data, including Internet access whether they live in an apartment, condo, townhouse, suburban single family home or rural farmhouse. Moreover, as explained at great length herein, those OTARDs may be part of a mesh network.

CIA next argues, "Extending the Section 207 to broadcast wireless facilities facially conflicts with statutory law."³⁸ WISP is unsure what this statement means. WISP does not provide access to TV or radio broadcasting, except as a network member might stream such programming across its Internet connection. Further, there is no evidence in the record suggesting WISP transmits broadcast television or radio programming.

"Broadcasting" is defined in the Act as, "the dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations."³⁹ WISP does not hold any FCC broadcasting radio licenses. In sum, CAI's comments are not understandable and, as such, should be ignored.

³⁴ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) at § 207.

³⁵ CAI Comments at unnumbered page 2.

³⁶ See WISP Reply at 2 and n.5 *supra*.

³⁷ All of WISP's antennas were one-meter in diameter as required by the OTARD Rule. Petition at 20, 22. Further, the City makes no claim that the antennas were not compliant with the FCC's size restrictions.

³⁸ CAI Comments at unnumbered page 2.

³⁹ Section 3(7) of the Act, 47 U.S.C. § 153(7). Section 303 of the Act, 47 U.S.C. § 303, sets forth the powers and duties of the Commission with respect to radio and TV broadcasting. Section 303(v) give the FCC "exclusive jurisdiction to regulate the provision of direct-to-home satellite services."

VI. Conclusion

For the reasons set forth in the Petition, exhibits thereto and this reply, the Commission should promptly grant WISP's request for a declaratory ruling and any other appropriate relief against the City's unlawful attempt to use its zoning ordinance against WISP's operation of its mesh network.

Respectfully submitted,
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